KOFORIDUA TECHNICAL UNIVERSITY

Undergraduate Guide

Faculty of Built and Natural Environment

Building Your Future

Innovating For Development

KOFORIDUA
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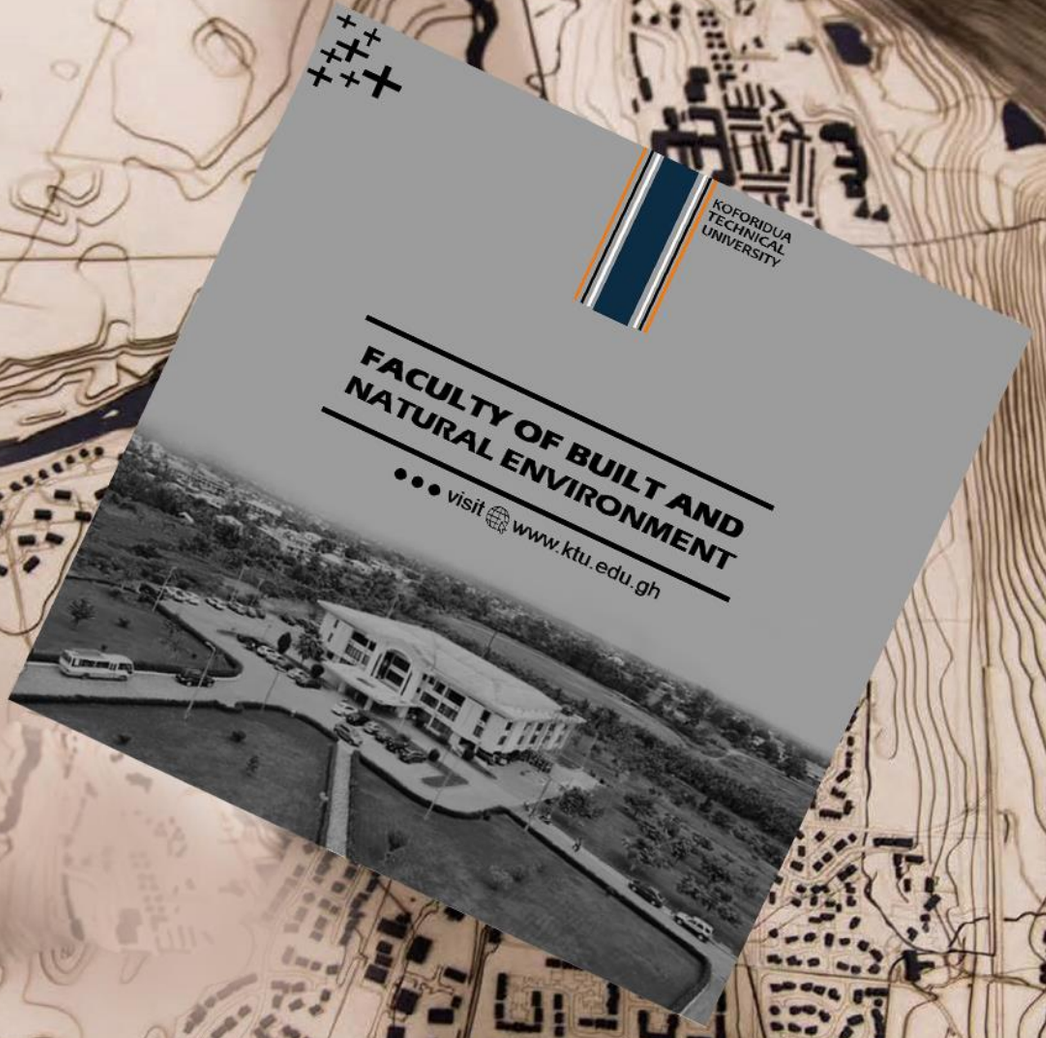
UNIVERSITY



6th Best Ghanaian University of the Year 2022

(The AD Scientific Index, 2022), recognised KTU for our teaching excellence, student- centered approach and are consistently named as one of the top 6th universities in Ghana

CONTENTS

Help Build a Sustainable Africa

Our buildings, towns, and cities – our natural and built environment – are important. Functionally, they provide the physical settings in which we live; work, and play, but they also communicate our values and aspirations as societies and cultures. We engage with our environment in so many ways. Almost everything that you touch, see or use in our built environment is designed. Sometimes this is done with elegance, and sometimes not. The difference often resides in the quality of the vision, the idea, the way in which it is built, and how the process of translating an idea into reality is achieved. Professional expertise, vision, and collaboration is therefore crucial to the design and construction of high-quality buildings, villages, towns, and cities.

At a global scale we are experiencing unprecedented challenges. Our climate is changing, we are poor at recycling and produce too many pollutants, yet population growth continues. Collectively, we have a duty to be responsible in our use of energy, materials, and natural resources, and in looking after the natural world. Our buildings and cities influence this perhaps more than anything else, and they need to be cleaner and more efficient. More than ever we need imagination and vision from their creators.

Today, professional expertise is vital to ensuring that we transform our ways of living in sustainable ways, and the design and construction of our buildings, towns, and cities plays a central role in this agenda. Indeed, with respect to renewable energy use, responsible material consumption, and reduced emissions, it is arguably the field in which you can make a difference most powerfully with respect to climate change. The Faculty of Built & Natural Environment is committed to this agenda.

Research shows that through design the built environment can also enable healthier lifestyles and create stronger, more vibrant communities.
Our experiences through the Covid pandemic have reminded us all just how important this is. The industry, spanning from those who imagine and design to those who transform ideas into reality, is rising to these challenges – and with challenge lies enormous opportunity for you. We will prepare you to seize these opportunities.

Constructing places for ourselves goes back thousands of years and is a need that will continue of necessity. It is perhaps the oldest industry of all, and the one whose future is most assured. But it is transforming fast into a world that is as much about virtual reality, automation, 3D printing, and drones, as it is about bricks and mortar. We will enable you to develop the skills for this 21st century world.

The design and construction of our buildings and cities has the capacity to improve the quality of our everyday lives, whilst also helping us address the big global challenges of climate change, health and well-being, creating communities, and developing sustainable economies. Our work will impact on future generations as well as our own.

What could be more important?
What could be more exciting?

Introducing the Faculty (FBNE)

The Faculty of Built Environment and Natural Environment is one of the oldest of its kind in Ghana, with a history that extends back to the 19th Century. It has three departments: Building technology, Environmental Management & Technology and Integrated Development Planning

Over its long history, our Faculty has continuously evolved to orient itself to the needs of our professional areas, and to ensure that our graduates are highly sought after as employees and as future leaders within their chosen professions. We are consistently named as one of the top Ghanaian universities for graduate employability, and our graduates have benefitted from our accolades and rankings, developing exciting, successful, and rewarding careers around Africa and the world.

The Faculty has an enduring ethos that achieves a balance between theoretical understanding and knowledge and practical application. Simply put, our graduates are inquiring, imaginative, informed, and resourceful, but also possess the essential skills that equip them to put their ideas into practice. That is what makes them so sought after.

Today, our cities are becoming ever more crowded, and our climate is changing due to human activity. Architects, Technologists, Surveyors, planners, Environmentalists and Project Managers all have an important role to play in tackling these challenges in ways that are imaginative, efficient, and beautiful. Indeed, there are few careers that present opportunities that can equal those involved in design and construction.

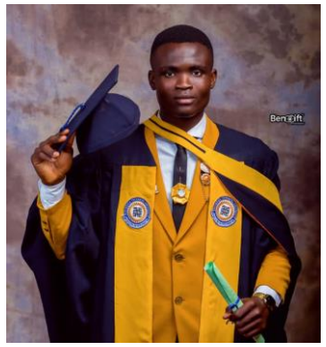
"I met staff and tutors that supported me through the years. I tested myself, travelled, explored, worked, created, learned to stand up and value my ideas, meet countless amazing individuals and people with opposite understanding of ideas and life, which gave me the advantage to look at certain problems from many new sides."

Ryan Freeman Maxwell, Overall Best graduating Btech student in KTU, Building Technology, 2018

Why come to the Faculty of Built & Natural Environment?

"I had many great and unforgettable moments at KTU and the FBNE. I was lucky to meet lifelong friends, great passionate tutors and kind staff that were always supporting cheerful and really interested in my ideas or difficulties. I had many opportunities to further develop myself in my professional and personal life and to experience things I wanted to do for a long time. I had the chance to gain many skills and a lot of knowledge in a creative and flexible environment. Through difficult and happy moments,

I have enjoyed my time at KTU, always supported and pushed to do better. It proved to be a good decision especially as an international student."



Afrifa R. Donkor, Overall Best HND graduating student in KTU, Environmental Mgt & Tech, 2020

Why come to the Faculty of Built & Natural Environment?

We Shape the World

Our Faculty has an unparalleled record in educating creative, resourceful, and enterprising professionals who have positively influenced and shaped the physical world in which we live, across and beyond Ghana.

We are Top for Graduate Employment

The University's focus on professional education informed by industry input and engagement has led to its reputation for graduate employment, and this performance is also true of the Faculty of Built and Natural Environment. Importantly, all our degree, diploma and certificate courses contain integrated periods of work-related experience that increase your employability and gives you a competitive edge; putting you one step ahead when applying for jobs.

We have Bespoke Facilities

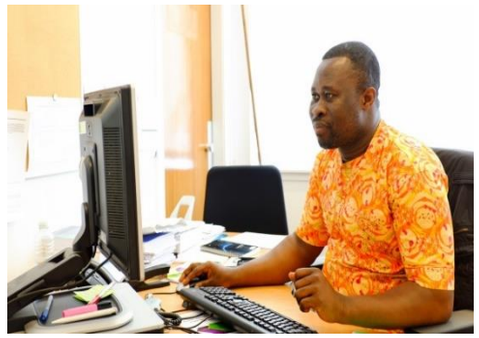
Our facilities provide our students with innovative and the technology to ensure that they can undertake industry-level projects. All students, regardless of course or study level, enjoy a dedicated place in which to work, a place that you can inhabit and make your own. Our facilities were designed specifically for the Faculty, and have been organised to enable a close interaction between students and staff, and on open, collaborative, and creative environment.

We are a Community

As a student of the FBNE, you are a member of a community. Our Faculty serves as a 'home' to our students, a place to which they belong and in which staff and students work closely together in a collaborative, supportive, and creative learning environment. Watch our video to get a feel for our environment: www.ktu.edu.gh/fbne.film

We Value our Students

Our students are the lifeblood of the Faculty and University. They matter, you will matter, and we strive to make your experience the best it can possibly be.



Prince Boateng (PhD. MSc, AFHEA)
Dean - FBNE

Student Life and Community

We have a strong and vibrant learning community within the Faculty, which has our students at its heart.

When you start your University journey, we regard you as a young professional embarking on a journey with us and who will have the opportunity to develop a successful career around the world

Much of our sense of community derives from the scale of the Faculty. With a stable on-campus cohort of approximately **500 students,** we get to know you quickly, and you, us. This is the basis of our culture of support and accessibility, and we support and challenge you in order to give you the best opportunity to excel.

The learning experience is student-centred. You will learn through doing; thinking, questioning, challenging, and developing innovative and rigorously tested ideas. Enquiry and discussion form the core of our teaching, and of the culture of the Faculty.

We understand the importance of teaching digital and emerging technologies to equip our graduates for future working environments. We also respect and teach the traditional skills that underpin our creative and professional disciplines, and your experience will embrace both.

Opportunities for you to directly influence your experience through collaboration with staff form an important part of our ethos. You will also benefit directly from the distinguished practitioners who form a core part of our teaching teams, ensuring a strong contemporary relevance to your learning.

The Faculty has vibrant lecture societies coupled with a programme of exhibitions and events, which all serve to further promote discussion and debate.

Being an FBNE Student (ABNES)

"Don't hesitate to join the ABNES community as opportunity abounds, including great teaching resources, a supportive and inclusive student society, and a well-equipped campus"

Noah Samuel, ABNES President /EMT Student, 2022

"The open-door policy adopted within the Faculty is a key point which I would emphasise to any prospective student. This is a great way to enhance learning, by being able to check work or ask questions when required, rather than waiting until the next class. Staff are always very willing to help, whether it is in person or by email, and regardless of whether it is about a course or personal issue."

Richard Safo Mantey, Stage 1, BTech Quantity Surveying Student.

"The impact of the Covid-19 lockdown has been a very unnerving experience in general. However, the preparation and work put in by the lecturers to adapt the course for online delivery has been extremely successful in ensuring the best possible experience for the students."

Prince Mensa Sowah, Stage 3, HND Building Technology Student

“The flexibility of my course and knowledge gained at KTU allowed me to engage in many extracurricular activities. With my studies combined with experiences from external activities greatly boosted my CV whilst also giving me the confidence to take on new challenges.”

Larko Faustina Teye, HND graduate, Environmental Mgt & Tech, 2020

“The open-door policy and ability to reach any of the staff member at any point creates a special home-like environment enabling students to reach their best. The continuous support and advice are forever lasting, even after graduation we are still part of the FBNE family. The knowledge acquired during the course gave me a strong foundation to build on towards my future as an industry professional.”’

Nuhu Zalia, HND EMT Graduate, 2020

“The learning culture of FBNE is definitely different from Cabon, but the lecturers and students here are very friendly and will help you if you need it. Here in Koforidua, it’s a very safe place to live in. Also, the university is equipped with great facilities!”

Hans Boris, HND Building Technology Graduate, 2018.

Our Facilities

“KTU provides a great environment to learn in. The modern, light and spacious buildings provide all the facilities that are required to aid learning, from a well- equipped library (both physically and digitally), to study spaces (such as high specification computer labs to a range of catering and leisure facilities. These are great spaces to use and get to know people.”

Matthew J. Kusi, Stage 1, Real Estate Management Student

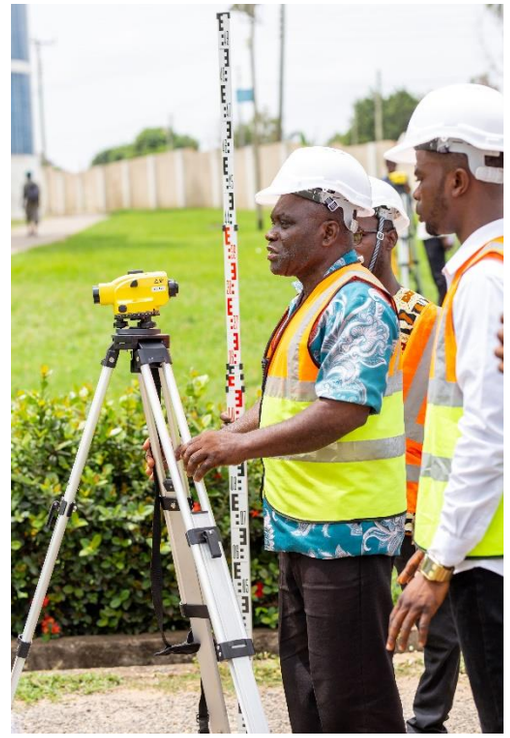
We have workshop facilities that provide analogue and digital tools.
you will have the opportunity to use traditional hand tools, power tools, and digital fabrication technology.

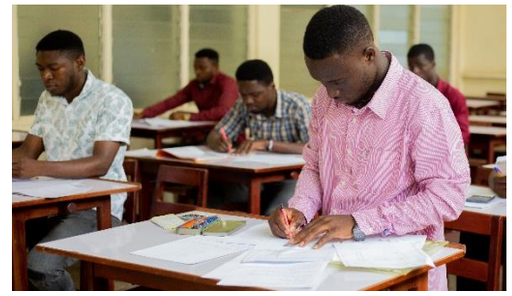
An Environmental Laboratory enables simple experiments to be undertaken in developing an understanding of building performance in areas such as energy loss.

Our building contains IT suites, with all teaching spaces having an abundance of network points along with Wi-Fi coverage. This allows you to work online in very flexible ways, whilst also giving ready access to specialist professional standard software through the labs.

Our building forms a wing of a larger complex that houses one of the University Libraries with an extensive collection of books, journals and e-publications relating to architecture, planning, environmental management and technology, building technology, real estate management, building services technology, quantity surveying and commercial practice and as well as related built environment programmes.

We are very proud of our facilities, the quality and extent of which can be matched by few other universities in Ghana.





Societies and Events

An important indicator of the vitality of our Faculty, and the motivation and passion of our students, is the range of extra-curricular activities that take place of the students' own volition. At the FBNE we benefit from a wide variety of such activities, including:

Lunch & Learn Programme

This highly successful programme organises monthly presentations and CPD events primarily for staff and students, which are delivered by industry practitioners.

Community Engagement

The role that the Faculty plays in the community as a generator and promoter of ideas, and as the provider of research expertise that benefits external organisations and agencies, is central to our ethos and identity. This work frequently involves students from across the municipalities in Koforidua and further augments their learning and skills development, as well as serving to build professional networks at an individual level

Association of Built & Natural Environment Students (ABNES)

Built Environment Women Society (BEWS)

Promoting Equality in the built and natural environment

Team Working

Professional Learning

"I have had the pleasure of working with a number of building technology and quantity surveying graduates from the faculty of built and natural environment over the course of my career and have been impressed by their level of understanding, their problem-solving abilities, and their diligence to the task in hand."

Jason Mensah, Director, PM Architects

Professional education lies at the heart of Koforidua Technical University.

All of our courses are accredited by Ghana Tertiary education commission (GTEC) expanding opportunities for graduates in the west Africa sub-region workplace.

How our students learn is also central to our ethos. We are one of the few University of our kind with a mix of professional disciplines spanning from those who plan, imagine and design, cost to those who manage construction and project delivery. This encourages collaboration, whilst also developing an understanding of the role of our allied professions in the overall process from project inception to completion.

All subjects enjoy dedicated space that has been specifically designed for their use. This encourages inhabitation and the creation of communities, which is important because students learn from one another as well as from lecturers.

Equally, the involvement of distinguished practitioners as core members of our teaching teams is central to our philosophy, directly connecting student learning to contemporary professional practice. For similar reasons, all our degree and diploma courses contain integrated periods of work-related experience.

Much of our learning is 'hands on', with students working seamlessly between drawings, note pads, computer packages, and physical model-making, depending on their subject of study. Students work individually and in groups. Whatever your subject interest, learning is exploratory, active, and social.

Learning also embraces other modes, including online learning and weekend studies.
The Faculty, with support from KTU ICT Directorate has invested heavily over many years to ensure that the quality of online learning is equivalent to the experience of campus-based students, including platforms that facilitate interaction with peers.

By contrast, study via the weekend and IODL routes enables students to study in the workplace whilst in employment, thus enabling the full integration of theory and practice, and enabling the student to use their daily employment experience as valuable learning within the context of their course.

Staff and students work together and learn from one another. Our students routinely tell us how much they value this, and our alumni consistently cite this as a defining quality of the FBNE student experience. Through research and scholarship, our staff work to progress their fields of expertise, and in turn this work informs student learning.

Utilising this approach, we are proud to offer opportunities to study at many levels, whether for a Certificate, Diploma or Degree award.

"The subject coverage over the years has been excellent I feel. Most areas of the profession have been covered in great detail and all the modules have been relevant to a future career. The relevance of what I had learned was particularly highlighted to me on Placement, where I had to draw on a range of skills from across all years and modules and put these into practice."

Wilson, Kujoe Stage 2, BTech BT studt.

International Linkage

Our community of students and staff is international, reflecting the global nature of our professions and the wider industries within the Built and Natural Environment.

Our courses encourage you to understand, appreciate, and actively engage with our professional contexts. Exposure to different cultural perspectives is essential in the contemporary world of work, particularly when you are likely to work on projects in other parts of West Africa and beyond, irrespective of where your career ultimately develops.

This takes place through course content, but also through overseas study visits and international study exchanges with partner institutions. We have a number of partners in the USA, each of which provide opportunity to study abroad for a period, and from whom we welcome students to join us reciprocally.

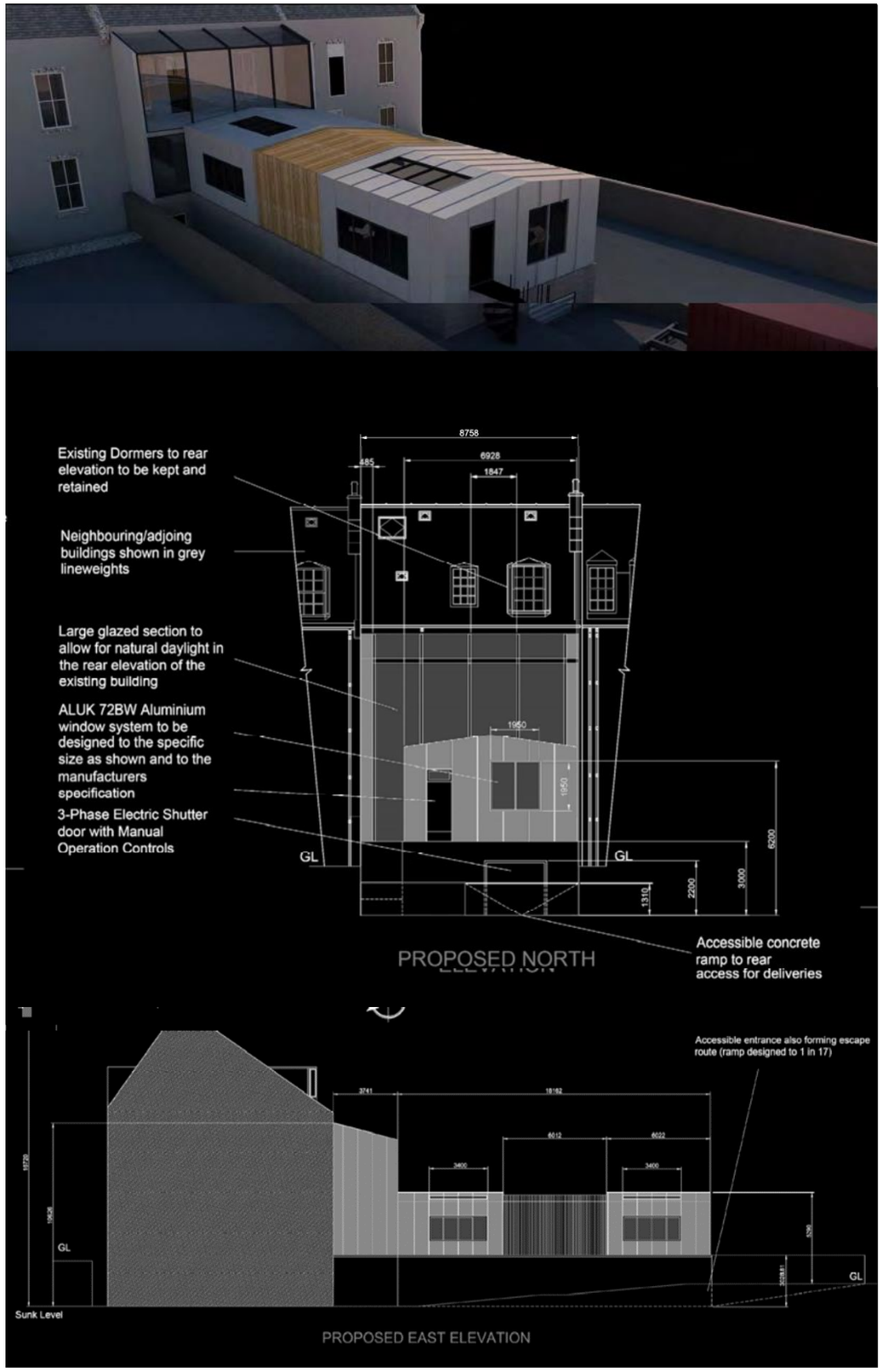
These experiences develop and broaden your understanding and contextual awareness, but they also cultivate personal confidence and professional skills.

Scholarships at KTU

All Students
Details of Financial awards and Scholarships for all students may be accessed at:
www.ktu.edu.gh.

Study Abroad and Global Exchanges
The Study Abroad and Global Experiences (SAGE) office has funding for faculty to travel overseas to gain a greater understanding and appreciation for another country and culture in order to internationalize their curriculum

Undergraduate Study



Surveying: What does it involved?

Surveying is a profession that is involved in all aspects of the built environment, land, construction, property and real estate, and infrastructure. This can include simple tasks such as evaluating projects all the way through, to helping clients make investment decisions worth millions of pounds.

Surveyors can find themselves working on projects from the design and construction of small residential extensions all the way through to the development of complex road and rail networks. The Surveyor's skills and knowledge ensure that their working day is almost never the same.

Our BTech Quantity Surveying & Commercial Practice is distinctive because of:

- An unparalleled graduate employment record in the field of Quantity Surveying.
- The opportunity to be student member of Ghana Institution of Surveyors (GhIS) after first year.
- Our project-based learning methods that help foster a collaborative approach, and the ability to practically apply knowledge to industry scenarios
- The provision of space dedicated to the subject area, which students can work in their own time, and independently interact with their peers

Surveying comprises different professional routes, the most prominent of which is that of Quantity Surveying.

BTech Quantity Surveying & Commercial Practice (QSCP)

The Quantity Surveying profession is broad in nature and professionals must have the knowledge and skills in a number of core areas pertaining to the technical, economic, financial and legal management of construction. Commercial dimension?

Quantity Surveyors work collaboratively with other built environment professionals to ensure clients receive value for money in projects. Specific areas of expertise include:

• Cost Planning and Control

is essential, and the preparation of estimates for construction costs and the cost of a building over its life is vital

• Tendering and Contract Administration
Managing the entire tendering process including preparation of bills of quantities, ensuring that the construction stages progress as intended

• Value Engineering

selecting the best option from a range of design solutions. Providing advice on how to develop designs to achieve the cost reductions and value enhancements

• Commercial Practice
Managing financial processes used to achieve profitability and integrate these with the overall delivery of the project resolution procedures commonly used in the industry and advocating in the avoidance, management and resolution both the public and private sectors, and work for clients/developers, consultancies as well as contractors.

How do we want to adapt this in light of new award?

The course is designed to develop a range of skills relating to the built environment including; managing tasks and solving problems, applying numeracy, as well as design, technology and management skills and communication. In addition, you will learn the role of your profession in relation to others.

Many of the modules at year one is delivered to a mixed cohort of Quantity Surveying & Commercial Practice, Real Estate Management, Building Services Technology and Construction Technology & Management students which enrich your learning experience by seeing the different emphasis that each discipline places on the same subject.

Year 1 exposes you to the foundations of construction and surveying.

In year 2, you will be separated into various specialization where you will develop an appreciation of buildings, and an understanding of the processes in design and construction which concern the Quantity Surveyor. You will start to develop learning of collaborative practice and the use digital software.

In Stage 3 you interpret and apply key knowledge and understanding of commercial practice and construction to problem-based projects. In the second semester there is an opportunity to apply this knowledge in practice in a placement setting, providing you with the relevant industry- standard technical and professional skills, outing you one step ahead when applying for jobs.

work placement where you attain academic credits whilst developing practical professional can choose to study overseas with one of our partner universities.

In Stage 4 you synthesise and critically evaluate contemporary commercial management construction related problems. In addition, you are expected to undertake significant independent study within the specialist areas of the course. Many students will use the dissertation module to advance the knowledge gained in their industrial placement which, in turn, enhances their employability.

As you progress from Stages 1 to 4, the level of independent learning increases, and you are expected to apply your knowledge to more complex contexts and have the confidence to do so on your own initiative.

On completion of the course, successful students are expected to have developed a range of technical, professional and “soft” skills which will be invaluable in the graduate employment market, and in the development of their career.

YEAR ONE CURRICULUM FOR ALL PROGRAMMES (CTM, QSCP, REM, BST)

YEAR 1 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
BTC 101	Introduction to the Construction Industry	2	2	3
AFS 101	African Studies	2	0	2
ARCH 101	Design Communication	1	2	2
CTM 101	Materials & Elements of Building	2	0	3
BTC 103	Introduction of Computers and Applications	2	0	2
CTM 103	Soils and Foundation Systems	2	2	3
BTC105	Introduction to Economics	2	0	2
BTC 107	Principles of Land Surveying	2	2	3
ENGL 157	Communication Skills I	2	0	2
	TOTAL: 9	**17**	**8**	**22**

YEAR 1 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
BTC 102	Building Science	2	0	3
CTM 102	Introduction to Management in Construction	2	2	3
ARCH 102	Construction Drawing	2	0	2
QSCP 102	Measurement of Substructure Works	2	2	3
BTC 104	Engineering Surveying	2	3	3
CTM 104	Strength of Materials I	2	0	3
BTC 106	Workshop Practice 1	0	2	1
CTM 106	Timber Construction Technology	2	2	3
ENGL 158	Communication Skills II	2	0	2
	TOTAL: 9	**16**	**11**	**23**

Discipline-Specific Curriculum for QSCP (Year 2-4)

YEAR 2 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
CTM 201	Concrete Construction Technology	2	2	3
QSCP 201	Construction Economics	2	0	2
BTC 201	Principles of Law	2	0	2
BST 201	Building Services and Equipment, I	2	2	3
CTM 203	Strength of Materials II	2	0	2
BTC 203	Critical Thinking	2	0	2
QSCP 203	**Measurement of Superstructure Works I**	**2**	**2**	**3**
CTM 205	Statics of Rigid Bodies	2	0	2
BTC 205	Construction Information Technology	2	0	2
	TOTAL: 9	**18**	**6**	**21**

YEAR 2 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
CTM 202	Sustainable Construction Practice	2	2	3
BTC 202	Construction Marketing	2	0	2
BST 202	Building Services and Equipment II	2	0	2
QSCP 202	Introduction to Estimating	2	0	2
CTM 204	Construction Resource Management	2	0	2
BTC 204	Commercial Law	2	0	2
QSCP 204	**Measurement of Superstructure Works II**	**2**	**2**	**3**
CTM 206	Construction of Metal Structures	2	2	3
BTC 206	Statistics for Builders	2	0	2
CTM 311	Civil Engineering Construction	3	0	3
	TOTAL: 10	**21**	**6**	**24**

YEAR 3 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
CTM 301	Components and Finishes	2	2	3
QSCP 301	Construction Works Procurement Mgt.	2	0	2
BTC 301	Law of Contract	2	0	2
CTM 303	Reinforced Concrete Design and Detailing	2	0	2
QSCP 303	**Measurement of Specialist Works**	**2**	**2**	**3**
BTC 303	Research Methods	2	0	2
CTM 305	Construction Planning and Control	2	0	2
QSCP305	**Construction Estimating and Price Analysis**	**2**	**0**	**2**
QSCP 307	**Pre-Tender Cost Management**	**2**	**0**	**2**
CTM 309	Civil Engineering Construction	3	0	3
	TOTAL: 9	**16**	**6**	**19**

YEAR 3 SEMESTER 2

Course Code	Course Title	T*	P*	C*
BTC 303	Internship	0	30	15
	TOTAL: 1	**0**	**30**	**15**

Industrial Placement

In Stage 3 of the course, you have the option to undertake an industrial placement throughout the semester two (2). This is a period of structured learning undertaken in the workplace and may sometimes also count towards the GhIS APC (Assessment of Professional Competence) requirements, which is the professional qualification leading to member status, thereby shortening the period required to achieve the full professional status.

Programme Accreditation

The course is accredited by the Ghana Tertiary Education Commission (GTEC)

YEAR 4 SEMESTER 1

Course Code	Course Title	T*	P*	C*
BTC 401	Technical Report Writing	1	0	1
QSCP 401	Project Cost Management	2	0	2
QSCP 403	**Measurement of Building Services Works**	**2**	**2**	**3**
BTC 403	Integrated Project	0	4	2
QSCP 405	**Project Feasibility Analysis and Valuation**	**2**	**2**	**3**
CTM 405	Construction Productivity and Quality Management	2	0	2
CTM 407	Building Maintenance	2	0	2
BTC 405	Dissertation Writing 1	0	0	0
	Total: 8	**11**	**8**	**15**

YEAR 4 SEMESTER 2

Course Code	Course Title	T*	P*	C*
QSCP 402	**Contract Administration and Professional Practice**	**3**	**0**	**3**
BTC 402	Entrepreneurship	3	0	3
CTM 402	Introduction to Construction Project Management	2	2	3
QSCP 404	**Measurement of Civil Engineering Works**	**3**	**0**	**3**
CTM 406	Construction Health and Safety	3	0	3
BTC 404	Dissertation Writing 2	0	0	6
	Total: 6	**14**	**2**	**21**

LEGEND
T* = THEORY/TAUGHT **P*** = PRESENTATION/TUTORIALS **C*** = CREDITS

Real Estate Management:
What does it involve?

Delivered over four years on both regular (full-time) and or weekend bases. In both cases an industry placement will be included, our BTech Real Estate Management degree course blends theoretical knowledge with applied professional skills and competencies:

During your studies, you will learn through academic seminars and tutorials. You will also experience project work with other built environment students, mirroring the multidisciplinary approaches used in modern property and construction

Our BTech Real Estate Management is distinctive because:

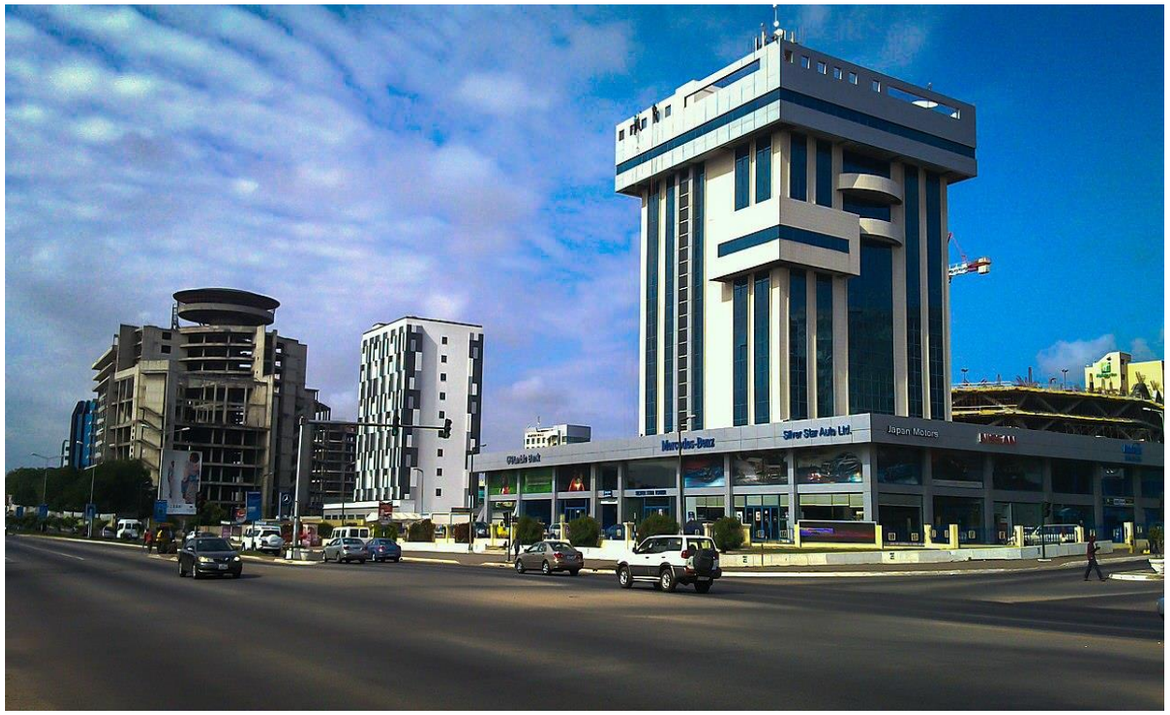
Knowledge of real estate is relevant to the properties we live in, work in and spend our leisure time in. If you're interested in becoming a real estate professional or chartered surveyor, this course is ideal.

It Centers around the property life cycle, you'll study valuation, law, estate agency and asset management, as well as economics, planning and development, business management and accounting principles. Your studies will reflect the need for responsibly managed and sustainable environments.

Through connections and close links to industry professionals and firms, this course ensures you can hit the ground running when you start a work placement or graduate job.

Our project-based learning methods help foster a collaborative approach, and the ability to practically apply knowledge to industry scenarios

The provision of space dedicated to the subject area, which students can work in their own time, and independently interact with their peers



BTech Real Estate Management (REM)

Delivered over four years full-time - or four if you choose to include an industry placement, our BTech Real Estate Management degree program blends theoretical knowledge with applied professional skills and competencies:

During your studies in year 1, you will learn through academic seminars and tutorials. You will also experience project work with other built environment students, mirroring the multidisciplinary approaches used in modern property and construction.

During year 2, you will be separated into various specialization where you will develop a solid framework from which to progress, as you explore the legal, economic and technical aspects of real estate surveying
As you progress to year 3, you will integrate planning, urban regeneration and property asset management. At the end of year 3, you can also start your industry placement year

In your final year, you will expand your knowledge in areas such as conservation and strategic planning. You will also experience multi-disciplinary projects and complete a final research-based project as you demonstrate the skills and knowledge you have developed.

On completion of the course, successful students are expected to have developed a range of technical, professional and “soft” skills which will be invaluable in the graduate employment market, and in the development of their career

Reasons to choose KTU

This BTech degree is fully accredited by the Ghana Tertiary Education Commission (GTEC).

If you wish to work towards a qualification as a chartered surveyor, this degree fulfils the academic requirements.
Active liaison with industry professionals and academic mentoring ensures that after four years, you'll have both a BTech degree and the practical understanding that employers are looking for. Through practical assessments and blended learning, you'll get to study commercial real estate management first-hand!

Employment

This course is designed to help you to develop a range of personal and professional skills which will make you highly-employable. Once you progress and complete our full BTech Real Estate Management degree, you'll graduate with diverse and rewarding careers opportunities ahead of you.

The built environment is one of the world’s largest employment sectors providing a wealth of opportunities in the design and development of cities and urban development. With an extensive understanding of the property and real estate industry, you'll be well equipped to pursue a variety of roles.

Discipline-Specific Curriculum for REM (Year 2-4)

YEAR 2 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
CTM 201	Concrete Construction Technology	2	2	3
REM 201	Real Estate Economics	2	0	2
BTC 201	Principles of Law	2	0	2
BST 201	Building Services and Equipment I	2	2	3
REM 203	Quantitative & Financial Mathematics	2	0	2
BTC 203	Critical Thinking	2	0	2
REM 205	Accounting Principles for Property Practitioners	2	0	2
BTC 205	Construction Information Technology	2	0	2
REM 207	Introduction to Real Estate Industry	3	0	3
	Total: 9	**19**	**4**	**21**

YEAR 2 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
CTM 202	Sustainable Construction Practice	2	2	3
REM 202	Real Estate Marketing	2	0	2
BST 202	Building Services and Equipment II	2	0	2
QSCP 202	Introduction to Estimating	2	0	2
CTM 204	Construction Resource Management	2	0	2
BTC 204	Commercial Law	2	0	2
REM 204	Principles of Valuation 1	2	2	3
REM 206	Planning Law & Institutional Framework	2	0	3
BTC 206	Statistics for Builders	2	0	2
	Total: 9	**18**	**4**	**21**

YEAR 3 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
CTM 301	Components and Finishes	2	2	3
REM 301	Information Management System	2	2	2
BTC 301	Law of Contract	2	0	2
REM 303	Property Development Planning	2	0	3
BTC 303	Research Methods	2	0	2
REM 305	Law of Succession and Trust	2	0	2
REM 307	Real Estate Finance & Investment Analysis	2	0	3
REM 309	Principles of Valuation 2	2	2	3
REM 311	Sustainable Housing Development	2	2	3
	Total: 9	**18**	**8**	**23**

YEAR 3 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
BTC 302	Internship	0	30	15
	Total: 1	**0**	**30**	**15**

INDUSTRY PLACEMENT

On the BTech Real Estate Management Program, you will have the option to take an industry placement year between years two and three. Although you will be responsible for securing your placement, our tutors will support you in finding a role, and monitor your progress throughout.

Industry placements are an excellent way to enhance your CV, gain hands-on work experience and build industry connections. We often find that placement students achieve higher final year grades.

YEAR 4 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
BTC 401	Technical Report Writing	1	0	1
REM 401	Real Estate Taxation & Statutory Valuation	2	0	3
REM 403	Environmental Management & Development	2	0	3
REM 405	Corporate Finance	2	0	2
REM 407	Advanced Valuation	2	2	3
REM 409	Customary Land Law	2	0	3
REM 411	Estate Management	2	0	3
BTC 405	Dissertation Writing 1	0	0	0
	Total: 8	**13**	**2**	**18**

YEAR 4 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
REM 402	Professional. Practice	**3**	**0**	**3**
BTC 402	Entrepreneurship	3	0	3
CTM 402	Introduction to Construction Project Management	3	0	3
REM 404	Arbitration and Civil Procedures	**2**	**2**	**3**
CTM 406	Construction Health and Safety	2	2	3
REM 406	Property Insurance	**2**	**0**	**3**
BTC 404	Dissertation 2	0	0	6
	Total: 7	**15**	**4**	**24**

Facilities & Support

REM students enjoy the same facilities of a dedicated Surveying and Construction Management Studio. In addition, a state-of-the art computer lab with specialist software.

In addition to lectures, tutorials, seminars and workshops, you also have the opportunity to take part in organised visits to real estate construction sites, attend lunch time CPD sessions led by industry practitioners, and be informed of the latest cutting-edge research conducted at the Faculty and the University.

Entry Requirements

i. SSSCE Candidates
The applicants must have Passes (A–D) in three (3) core subjects including, English Language, Mathematics, Integrated Science plus three (3) passes in relevant elective subjects (including Elective Mathematics and Physics or Chemistry or Economics or Geography) with an aggregate not exceeding 24.

ii. WASSCE Candidates
The applicants must have Credit Passes (A1–C6) in six (6) subjects comprising three (3) core subjects, English Language, Mathematics, Integrated Science plus three (3) relevant elective subjects (including Elective Mathematics and Physics/ Chemistry/ Economics/Geography) with an aggregate not exceeding 36.

iii. Mature Applicants
Mature applicants with at least 25 years of age must pass a Mature Student Entrance Examination conducted by the University. A considerable number of relevant working years' experience may be required.

How to Apply

Applications for admission to both full-time weekend undergraduate BTech degrees should be made through the University's Admissions System at .....

If you are overseas, you can apply direct through one of our trusted agents in your country. To find a list of countries we visit, go to www.....

Student Service e-mail: .....
telephone: +233 (0).....

Construction Technology& Management: What does it involved?

Construction managers are responsible for overseeing building and construction projects from the early planning stages, right through to the implementation and final result. Not only is it their role to hire and supervise workers, but they must also coordinate schedules and subcontractors, estimate project costs, report progress to clients and superiors, ensure safety codes are being met and keep the project running to a set timeframe.

Key skills for the Construction Manager therefore include excellent communication, problem-solving, and team leadership.

Our BTech Construction Management & Technology is distinctive because:

- The curriculum for the programme is developed around the needs of the construction industry.

- The programme revolves around project-based learning methods that help foster a collaborative approach, and the ability to apply knowledge to a range of industry scenarios

- The opportunity to benefit from close links with industry throughout your studies, including a period between three and six months in industry placement.

- The provision of a dedicated space in which you can work independently and interact freely with their peers

The Construction Manager or Technologist uses their knowledge and skills to arrive at Coordinating all labour resources to meet clients' needs whilst recognising the importance of delivering a project on time, on budget, and to the required quality'.

BTech Construction Technology & Management (CTM)

Delivered over four years full-time which include an industry placement. Our BTech Construction Technology & Management degree programme blends theoretical knowledge with applied professional skills and competencies. It mainly emphasises the Proficiency of the candidate in Construction Management and provides construction training with an efficient and effective management system.
The course offers detailed knowledge of the various parameters that are unused in the Built Environment, and adds value to your designing skills, thinking skills, analytical skills, creativity, innovative approach to solve problems, passion for learning, and good time management

During your studies in year 1, you will learn through academic seminars and tutorials. You will also experience project work with other built environment students, mirroring the multidisciplinary approaches used in modern property and construction.

During year 2, you will be separated into various specialization where you will develop a solid framework from which to progress, as you explore the legal, economic and technical aspects of real estate surveying
On completion of the course, successful students are expected to have developed a range of technical, professional and “soft” skills which will be invaluable in the graduate employment market, and in the development of their career.

As you progress to year 3, you will integrate planning, urban regeneration and property asset management. At the end of year 3, you can also start your industry placement year

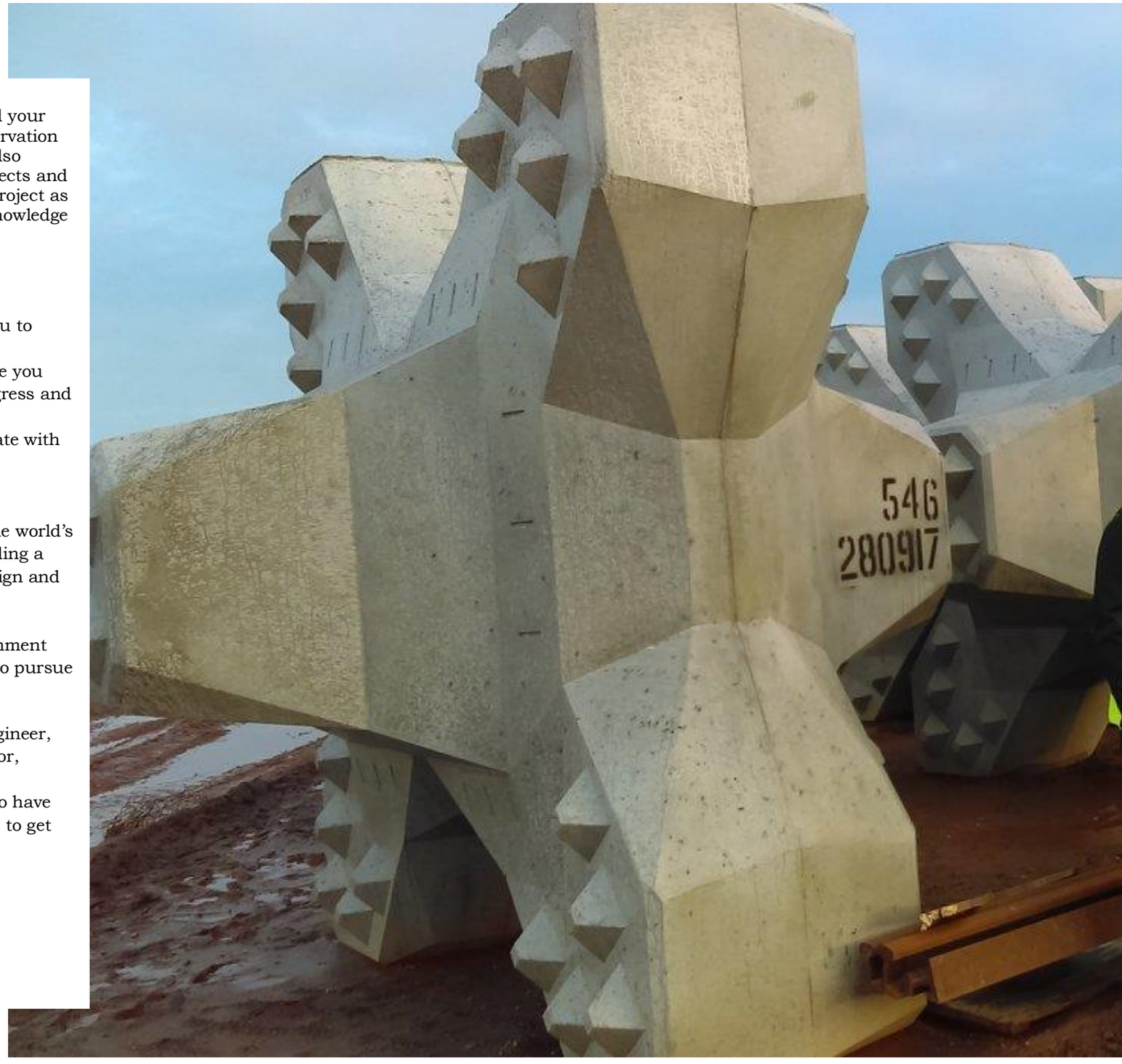
In your final year, you will expand your knowledge in areas such as conservation and strategic planning. You will also experience multi-disciplinary projects and complete a final research-based project as you demonstrate the skills and knowledge you have developed.

Employment

This course is designed to help you to develop a range of personal and professional skills which will make you highly-employable. Once you progress and complete the BTech Real Estate Management degree, you'll graduate with diverse and rewarding careers opportunities ahead of you.

The built environment is one of the world’s largest employment sectors providing a wealth of opportunities in the design and development of cities and urban development. With an extensive understanding of the built environment industry, you'll be well equipped to pursue a variety of roles.

Few of such roles include field engineer, project engineer, general contractor, Senior consultant etc. So, Job opportunities for the students who have completed this course are entitled to get employed in Construction firms



Discipline-Specific Curriculum for CTM (Year 2-4)

YEAR 2 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
CTM 201	Concrete Technology	2	2	3
QSCP 201	Construction Economics	2	0	2
BTC 201	Principles of Law	2	0	2
BSE 201	Building Services and Equipment, I	2	2	3
CTM 203	Strength of Materials II	3	0	3
BTC 203	Critical Thinking	2	0	2
CTM 205	Statics of Rigid Bodies	2	0	2
BTC 205	Construction Information Technology	2	0	2
CTM 207	Concrete Laboratory	1	3	3
	TOTAL: 9	**18**	**7**	**22**

YEAR 2 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
CTM 202	Sustainable Construction Practice 1	2	2	3
BTC 202	Construction Marketing	2	0	2
BST 202	Building Services and Equipment II	2	0	2
QSCP 202	Introduction to Estimating	2	0	2
CTM 204	Construction Resource Management	2	0	3
BTC 204	Commercial Law	2	0	2
CTM 206	Construction of Metal Structures	2	2	3
BTC 206	Statistics for Builders	2	0	2
	TOTAL: 8	**16**	**4**	**19**

YEAR 3 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
CTM 301	Components and Finishes	2	2	3
QSCP 301	Construction Works Procurement Management	2	0	2
BTC 301	Law of Contract	2	0	2
CTM 303	Reinforced Concrete Design and Detailing	2	0	2
BTC 303	Research Methods	2	0	2
CTM 305	Construction Planning and Control	2	0	2
CTM 307	Sustainable Materials and Green Buildings	2	2	3
CTM 309	Civil Engineering Construction	3	0	3
	Total: 9	**19**	**6**	**22**

YEAR 3 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
BTC 302	Internship	0	30	15
	TOTAL: 1	**0**	**30**	**15**

INDUSTRY PLACEMENT

On the BTech Construction Technology and Management Program, you will have the option to take an industry placement year between years two and three. Although you will be responsible for securing your placement, our tutors will support you in finding a role, and monitor your progress throughout.

Industry placements are an excellent way to enhance your CV, gain hands-on work experience and build industry connections. We often find that placement students achieve higher final year grades.

YEAR 4 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
CTM 401	Introduction to Mechanisation in Construction	2	2	3
BTC 401	Technical Report Writing	1	0	1
QSCP 401	Project Cost Management	2	0	2
CTM 403	Introduction to RS And GIS In Construction	2	0	2
BTC 403	Integrated Project	0	4	2
CTM 405	Construction Productivity and Quality Management	2	0	2
CTM 407	Building Maintenance	2	0	2
BTC 405	Dissertation 1	0	0	0
	Total: 8	**11**	**6**	**14**

YEAR 4 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
CTM 402	Introduction to Construction Project Management	3	0	3
BTC 402	Entrepreneurship	3	0	3
CTM 404	Intro. to Pre-Engineering Constr. and Technology	3	0	3
CTM 406	Construction Health and Safety	3	0	3
BTC 404	Dissertation 2	0	0	6
	Total: 5	**12**	**0**	**18**

Facilities & Support

CTM students enjoy the same facilities of a dedicated Surveying and Construction Management Studio. In addition, a state-of-the art computer lab with specialist software.

In addition to lectures, tutorials, seminars and workshops, you also have the opportunity to take part in organised visits to real estate construction sites, attend lunch time CPD sessions led by industry practitioners, and be informed of the latest cutting-edge research conducted at the Faculty and the University.

Programme Accreditation

The course is accredited by the Ghana Tertiary Education Commission (GTEC)

Entry Requirements

i. SSSCE Candidates
The applicants must have Passes (A–D) in three (3) core subjects including, English Language, Mathematics, Integrated Science plus three (3) passes in relevant elective subjects (including Elective Mathematics and Physics or Chemistry or Economics or Geography) with an aggregate not exceeding 24.

ii. WASSCE Candidates
The applicants must have Credit Passes (A1–C6) in six (6) subjects comprising three (3) core subjects, English Language, Mathematics, Integrated Science plus three (3) relevant elective subjects (including Elective Mathematics and Physics/ Chemistry/ Economics/Geography) with an aggregate not exceeding 36.

iii. Mature Applicants
Mature applicants with at least 25 years of age must pass a Mature Student Entrance Examination conducted by the University. A considerable number of relevant working years' experience may be required.

How to Apply

Applications for admission to both full-time weekend undergraduate BTech degrees should be made through the University's Admissions System.

If you are overseas, you can apply direct through KTU Student Service.

Building Services Technology: What does it involved?

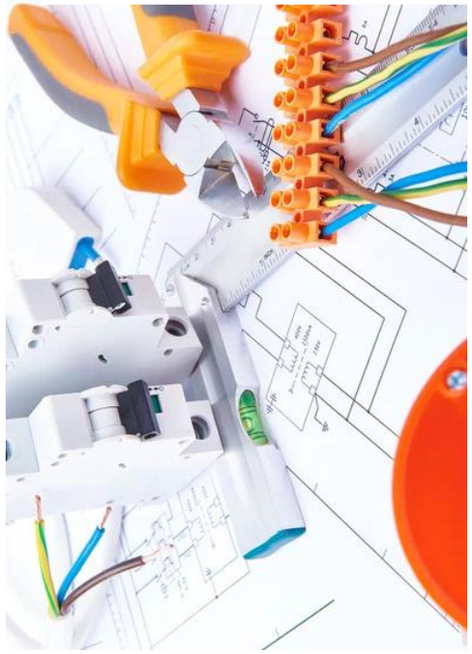
Most modern building rely on Building Services for the quality of the internal environment and building services account for a large proportion of the cost of many of today's major building project.

Achieving quality involves not only excellent design but also an understanding of the integration of building services into the building process, and their contribution to the energy and running costs of the facilities.

Building Services Technology Professionals are key members of the building project team, providing a specialized and crucial design and management services. They are responsible for major construction projects – with the joint aims of providing internal building comfort and functionality whilst minimize energy utilization, reducing the impact on global warming and climate change.

Services that need to be ***designed include heating, lighting, ventilation, air conditioning and electrical systems.*** The work is varied: all kinds of projects are undertaken, from refurbishing historic building to installing state-of-the-art systems in high-tech electronics factories and hospitals. Services have to be carefully designed and installed so that they are unobtrusive and aesthetically pleasing.

This programme is intended for student with good academic achievement and motivation. It provides a coherent programme of foundation and specialist learning in a high-quality environment.



BTech Building Services Technology (BST)

Delivered over four years full-time which include an industry placement. Our BTech Building Services Technology degree programme blends theoretical knowledge with applied professional skills and competencies.

B. Tech. in Building Services Technology program responds to the worldwide demand for building services professional who have a sound knowledge of engineering principles and the ability to apply this knowledge within the building services industry.

During your studies in year 1, you will learn through academic seminars and tutorials. You will also experience project work with other built environment students, mirroring the multidisciplinary approaches used in modern property and construction.

During year 2, you will be separated into various specialization where you will develop a solid framework from which to progress, as you explore the legal, economic and technical aspects of Building Services and Technology

On completion of the course, successful students are expected to have developed a range of technical, professional and “soft” skills which will be invaluable in the graduate employment market, and in the development of their career.

As you progress to year 3, you can also start your industry placement in semester two.

Final Year Project: This course is given in the sixth semester. This is a group project, which provides opportunity for the students to enhance their ability in problem solving, team work and leadership competencies acquired, throughout the undergraduate career.

To successfully complete this course students are expected to design and implement a challenging engineering project applying realistic constraints and engineering standards within a given timeframe and present technical ideas in written and oral form effectively.

Employment

This course is designed to help you to develop a range of personal and professional skills which will make you highly-employable. Once you progress and complete the BTech Building Services Technology degree, you'll graduate with diverse and rewarding careers opportunities ahead of you.

With an extensive understanding of the built environment industry, you'll be well equipped to pursue a variety of roles.

Stage one BTech Building Services Technology (BST) Practical session

Discipline-Specific Curriculum for BST (Year 2-4)

YEAR 2 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
CTM 201	Concrete Construction Technology	2	2	3
QSCP 201	Construction Economics	2	0	2
BTC 201	Principles of Law	2	0	2
BSE 203	Cold Water Systems	2	0	2
BTC 203	Critical Thinking	2	0	2
BSE 205	Building Physics	2	2	3
BTC 205	Construction Information Technology	2	0	2
BSE 207	Basic Engineering Mathematics	2	2	3
	Total: 8	16	6	19

YEAR 2 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
BSE 201	Power and Mechanics	2	0	2
CTM 202	Sustainable Construction Practice	2	2	3
BTC 202	Construction Marketing	2	0	2
BSE 204	Lighting Technology	2	2	4
BSE 206	Fluid Mechanics	2	2	3
BTC 206	Statistics for Builders	2	0	2
BSE 208	Sanitary Fittings and Appliances	2	0	2
BSE 212	Mechanical Conveyors in Buildings	2	2	3
BSE 214	HVAC 1	2	2	3
	Total: 9	18	10	24

YEAR 3 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
BSE 301	Indoor Air Quality Engineering	2	2	3
QSCP 301	Construction Works Procurement Management	2	0	2
BTC 301	Law of Contract	2	0	2
BSE 303	HVACR 2	2	2	3
BTC 303	Research Methods	2	0	2
BSE 305	Electrical Power Systems, Supply and Distribution	2	2	3
	TOTAL: 6	14	8	15

YEAR 3 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
QSCP	Internship	0	30	15
	TOTAL: 1	**0**	**30**	**15**

INDUSTRY PLACEMENT

On the BTech Building Services Technology Program, you will have the option to take an industry placement in the second semester of year three. Although you will be responsible for securing your placement, our tutors will support you in finding a role, and monitor your progress throughout.

Industry placements are an excellent way to enhance your CV, gain hands-on work experience and build industry connections. We often find that placement students achieve higher final year grades.

YEAR 4 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
BTC 401	Technical Report Writing	1	0	1
BSE 401	Building Performance Diagnosis and Management**	2	2	3
QSCP 403	Measurement of Building Services Works	2	2	3
BSE 403	Hot Water and Heating Systems**	2	2	3
BSE 405	Acoustics Engineering**	2	2	3
BSE 407	Drainage Systems in Building*	2	2	3
BTC 403	Integrated Project	0	4	2
BSE 409	Fire Fundamentals**	2	2	3
BSE 411	Engineering Experimental Design**	2	2	3
BTC 405	Dissertation Writing 1	0	0	0
	TOTAL: 10	15	14	24

YEAR 4 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
BSE 402	Professional Practice	3	0	3
BTC 402	Entrepreneurship	3	0	3
CTM 402	Introduction to Construction Project Management	2	2	3
BSE 404	Building Automation and Control**	3	0	3
CTM 406	Construction Health and Safety	3	0	3
BSE 406	Renewable Energy**	2	2	3
BSE 408	Building Energy Simulation**	2	2	3
BSE 410	Energy Efficient Buildings and Assessment**	2	2	3
BTC 404	Dissertation Writing 2	0	0	6
	Total: 9	20	8	30

Facilities & Support

BST students enjoy the same facilities of a dedicated Surveying and Construction Management Studio. In addition, a state-of-the art computer lab with specialist software.

In addition to lectures, tutorials, seminars and workshops, you also have the opportunity to take part in organised visits to Building services consultancy firms, construction sites, attend lunch time CPD sessions led by industry practitioners, and be informed of the latest cutting-edge research conducted at the Faculty and the University.

Programme Accreditation

The course is accredited by the Ghana Tertiary Education Commission (GTEC)

Entry Requirements

i. SSSCE Candidates
The applicants must have Passes (A–D) in three (3) core subjects including, English Language, Mathematics, Integrated Science plus three (3) passes in relevant elective subjects (including Elective Mathematics and Physics or Chemistry or Economics or Geography) with an aggregate not exceeding 24.

ii. WASSCE Candidates
The applicants must have Credit Passes (A1–C6) in six (6) subjects comprising three (3) core subjects, English Language, Mathematics, Integrated Science plus three (3) relevant elective subjects (including Elective Mathematics and Physics/ Chemistry/ Economics/Geography) with an aggregate not exceeding 36.

iii. Mature Applicants
Mature applicants with at least 25 years of age must pass a Mature Student Entrance Examination conducted by the University. A considerable number of relevant working years' experience may be required.

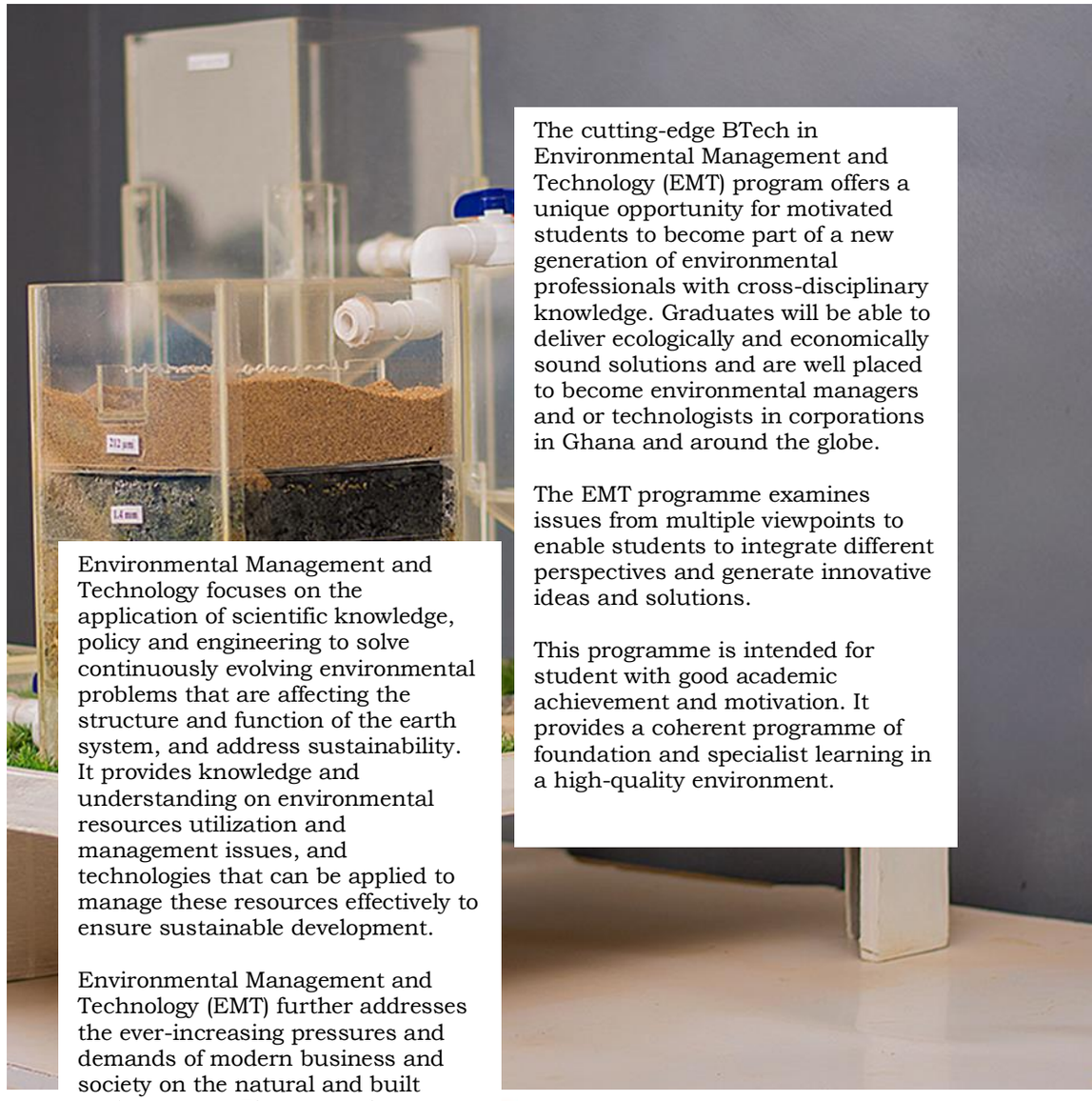
How to Apply

Applications for admission to both full-time weekend undergraduate BTech degrees should be made through the University's Admissions System at www.ktu.edu.gh.

If you are overseas, you can apply direct through one of our trusted agents in your country. To find a list of countries we visit, go to www.ktu.edu.h

Student Service e-mail:
www.ktu.edu.gh
telephone: +233 (0)

Environmental Management and Technology: What does it involved?



Environmental Management and Technology focuses on the application of scientific knowledge, policy and engineering to solve continuously evolving environmental problems that are affecting the structure and function of the earth system, and address sustainability. It provides knowledge and understanding on environmental resources utilization and management issues, and technologies that can be applied to manage these resources effectively to ensure sustainable development.

Environmental Management and Technology (EMT) further addresses the ever-increasing pressures and demands of modern business and society on the natural and built environments. These complex challenges require effective environmental management which is why we draw upon a range of different discipline areas including science, technology, the social sciences and management.

The cutting-edge BTech in Environmental Management and Technology (EMT) program offers a unique opportunity for motivated students to become part of a new generation of environmental professionals with cross-disciplinary knowledge. Graduates will be able to deliver ecologically and economically sound solutions and are well placed to become environmental managers and or technologists in corporations in Ghana and around the globe.

The EMT programme examines issues from multiple viewpoints to enable students to integrate different perspectives and generate innovative ideas and solutions.

This programme is intended for student with good academic achievement and motivation. It provides a coherent programme of foundation and specialist learning in a high-quality environment.

Programme Accreditation

The course is accredited by the Ghana Tertiary Education Commission (GTEC)

Environmental Management & Technology |*BTech*|*HND* |

The Bachelor of Technology (B.Tech) and Higher National Diploma (HND) in Environmental Management and Technology programmes aim at providing graduates from the Senior High Schools and other qualified applicants with the needed knowledge and skills in applying modern paradigm and techniques in environmental management and technology for environmental sustainability.

The programme has been designed to meet the required manpower and human resource needs of society as a means of supporting the country's goal of industrialization and socio-economic development.

Key areas covered by the programme includes pollution prevention and control strategies and policies in the areas of (air pollution, solid waste, water and wastewater pollution, industrial pollution control), environmental impact assessment, biodiversity conservation and geographical information systems.

The programme also presents opportunity for students to undertake an internship program with industries, government and non-governmental organizations to gain practical experience.

Graduates are equipped with the necessary basic knowledge, skills and attitudes and the understanding of technologies needed in managing environmental challenges in Ghana and beyond.

Final Year Project: This course is given in the sixth semester. This is a group project, which provides opportunity for the students to enhance their ability in problem solving, team work and leadership competencies acquired, throughout the undergraduate career.

Employment

This course is designed to help you to develop a range of personal and professional skills which will make you highly-employable. Once you progress and complete the BTech/HND Environmental Management and Technology degree, you'll graduate with diverse and rewarding careers opportunities ahead of you.

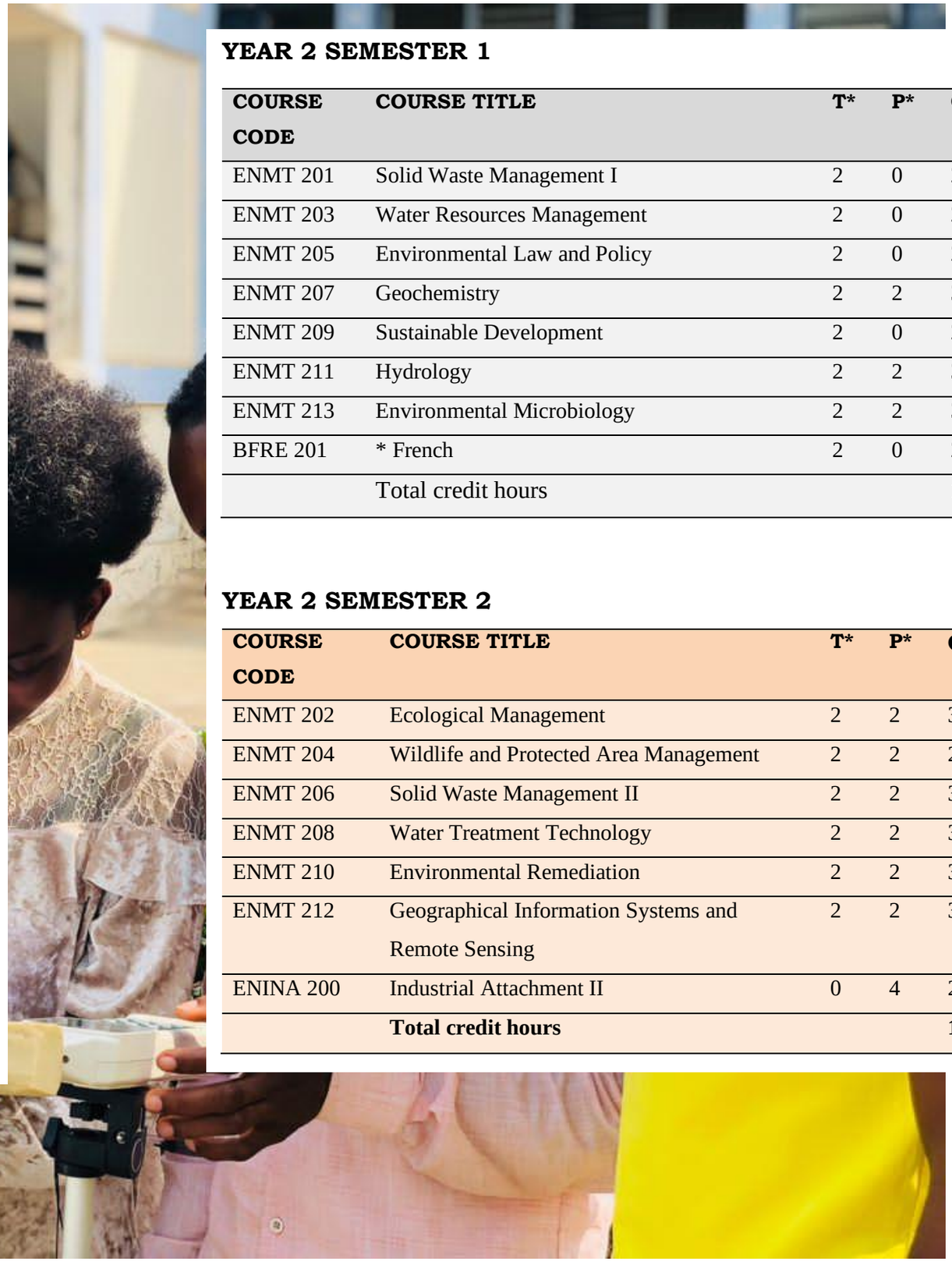
With an extensive understanding of the built environment industry, you'll be well equipped to pursue a variety of roles. Some of them include:
Environmental Consultant
Environmental Technician
Environmental Specialist, Waste Management Technician:
Sustainability Coordinator, Air Quality Technician,
Environmental Health and Safety Officer, Water Quality Technician, Park Ranger,
Conservation biologist, Educator

YEAR 1 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
BCOS 101	*Communication Skills I	2	0	2
BAFS 101	*African Studies	2	0	2
BCLT 101	*Computer Aided Learning	2	1	2
BMAT 101	Mathematics I	3	0	3
ENMT 101	Basic Soil Mechanics	2	2	3
ENMT 103	Fundamentals of Environmental Science	2	0	2
ENMT 105	Environmental Chemistry	2	2	3
ENMT 107	Introduction to Environmental Technology	2	0	2
	Total credit hours			19

YEAR 1 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
BCOS 102	Communication Skills II	2	0	2
BMAT 102	Mathematics II	3	0	3
ENMT 104	Energy Resources and Management	2	0	2
ENMT 106	Environmental Quality	2	2	3
ENMT 108	Geology	2	2	3
ENMT 110	Environment and Human Interaction	2	0	2
ENMT 112	Environmental Ethics	2	0	2
ENINA	Industrial Attachment I	0	4	2
	Total: 9			19



YEAR 2 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
ENMT 201	Solid Waste Management I	2	0	2
ENMT 203	Water Resources Management	2	0	2
ENMT 205	Environmental Law and Policy	2	0	2
ENMT 207	Geochemistry	2	2	3
ENMT 209	Sustainable Development	2	0	2
ENMT 211	Hydrology	2	2	3
ENMT 213	Environmental Microbiology	2	2	3
BFRE 201	* French	2	0	2
	Total credit hours			**19**

YEAR 2 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
ENMT 202	Ecological Management	2	2	3
ENMT 204	Wildlife and Protected Area Management	2	2	2
ENMT 206	Solid Waste Management II	2	2	3
ENMT 208	Water Treatment Technology	2	2	3
ENMT 210	Environmental Remediation	2	2	3
ENMT 212	Geographical Information Systems and Remote Sensing	2	2	3
ENINA 200	Industrial Attachment II	0	4	2
	Total credit hours			**19**

YEAR 3 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
ENMT 301	Wastewater Treatment	2	2	3
ENMT 303	Environmental Laboratory I	2	2	3
ENMT 305	Environmental Impact Assessment I	1	2	2
ENMT 307	Rural Sociology and Development	2	0	2
ENMT 309	Climate Change	3	0	3
ENMT 311	Research Methods	2	0	2
ENMT 313	Environmental Management Systems	3	0	3
	Total credit hours			**18**

YEAR 3 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
ENMT 302	Environmental Impact Assessment II	1	2	3
ENMT 304	Cleaner Production Technology	2	2	3
ENMT 306	Environmental Health and Safety	3	0	3
ENMT 308	Forest Resources Management	2	2	3
ENMT 310	Environmental Laboratory II	2	2	3
ENMT 312	Environmental System Design	2	2	3
ARCT 362	*Critical thinking and problem solving	1	0	1
	Total credit hours			**19**

YEAR 4 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
ENINA 401	Internship	0	24	12
ENMT 403	Project I	0	4	2
	Total credit hours	**0**		**14**

YEAR 4 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
ENMT 402	Urbanization, Land and Town Planning	3	0	3
ENMT 404	Process Technology	3	0	3
ENMT 406	Environmental Project Management	2	2	3
ENMT 408	Entrepreneurship	3	0	3
ENMT 410	Project II	0	6	3
	Total credit hours			**15**

Integrated Development Planning | *BTech* | *HND* |

The Bachelor of Technology (B.Tech) and Higher National Diploma (HND) in Environmental Management and Technology programmes aim at providing graduates from the Senior High Schools and other qualified applicants with the needed knowledge and skills in applying modern paradigm and techniques in environmental management and technology for environmental sustainability.

The programme has been designed to meet the required manpower and human resource needs of society as a means of supporting the country's goal of industrialization and socio-economic development.

Key areas covered by the programme includes pollution prevention and control strategies and policies in the areas of (air pollution, solid waste, water and wastewater pollution, industrial pollution control), environmental impact assessment, biodiversity conservation and geographical information systems.

The programme also presents opportunity for students to undertake an internship program with industries, government and non-governmental organizations to gain practical experience.

Graduates are equipped with the necessary basic knowledge, skills and attitudes and the understanding of technologies needed in managing environmental challenges in Ghana and beyond.

Final Year Project: This course is given in the sixth semester. This is a group project, which provides opportunity for the students to enhance their ability in problem solving, team work and leadership competencies acquired, throughout the undergraduate career.

Employment

This course is designed to help you to develop a range of personal and professional skills which will make you highly-employable. Once you progress and complete the BTech/HND Environmental Management and Technology degree, you'll graduate with diverse and rewarding careers opportunities ahead of you.

With an extensive understanding of the built environment industry, you'll be well equipped to pursue a variety of roles. Some of them include:
Environmental Consultant
Environmental Technician
Environmental Specialist, Waste Management Technician:
Sustainability Coordinator, Air Quality Technician,
Environmental Health and Safety Officer, Water Quality Technician, Park Ranger,
Conservation biologist, Educator

Programme Accreditation

The course is accredited by the Ghana Tertiary Education Commission (GTEC)

YEAR 4 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
BTC 401	Technical Report Writing	1	0	1
BSE 401	Building Performance Diagnosis and Management**	2	2	3
QSCP 403	Measurement of Building Services Works	2	2	3
BSE 403	Hot Water and Heating Systems**	2	2	3
BSE 405	Acoustics Engineering**	2	2	3
BSE 407	Drainage Systems in Building*	2	2	3
BTC 403	Integrated Project	0	4	2
BSE 409	Fire Fundamentals**	2	2	3
BSE 411	Engineering Experimental Design**	2	2	3
BTC 405	Dissertation Writing 1	0	0	0
	TOTAL: 10	15	14	24

YEAR 4 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
BSE 402	Professional Practice	3	0	3
BTC 402	Entrepreneurship	3	0	3
CTM 402	Introduction to Construction Project Management	2	2	3
BSE 404	Building Automation and Control**	3	0	3
CTM 406	Construction Health and Safety	3	0	3
BSE 406	Renewable Energy**	2	2	3
BSE 408	Building Energy Simulation**	2	2	3
BSE 410	Energy Efficient Buildings and Assessment**	2	2	3
BTC 404	Dissertation Writing 2	0	0	6
	Total: 9	20	8	30

YEAR 4 SEMESTER 1

COURSE CODE	COURSE TITLE	T*	P*	C*
BTC 401	Technical Report Writing	1	0	1
BSE 401	Building Performance Diagnosis and Management**	2	2	3
QSCP 403	Measurement of Building Services Works	2	2	3
BSE 403	Hot Water and Heating Systems**	2	2	3
BSE 405	Acoustics Engineering**	2	2	3
BSE 407	Drainage Systems in Building*	2	2	3
BTC 403	Integrated Project	0	4	2
BSE 409	Fire Fundamentals**	2	2	3
BSE 411	Engineering Experimental Design**	2	2	3
BTC 405	Dissertation Writing 1	0	0	0
	TOTAL: 10	15	14	24

YEAR 4 SEMESTER 2

COURSE CODE	COURSE TITLE	T*	P*	C*
BSE 402	Professional Practice	3	0	3
BTC 402	Entrepreneurship	3	0	3
CTM 402	Introduction to Construction Project Management	2	2	3
BSE 404	Building Automation and Control**	3	0	3
CTM 406	Construction Health and Safety	3	0	3
BSE 406	Renewable Energy**	2	2	3
BSE 408	Building Energy Simulation**	2	2	3
BSE 410	Energy Efficient Buildings and Assessment**	2	2	3
BTC 404	Dissertation Writing 2	0	0	6
	Total: 9	20	8	30